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TO: Each Supervisor

FROM: Thomas L. Garthwaite, M.D.
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Jonathan E. Fielding, M.D., M.P.H.
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SUBJECT: **UPDATE ON MRSA**

On January 11, 2005, the Board approved a motion by Supervisor Antonovich requesting a joint report at the January 25, 2005 Board meeting by the Sheriff and the Department of Health Services, addressing the concerns raised by recent media reports, including the factors contributing to the increasing number of people infected with MRSA in the jails and the community at large. Supervisor Molina requested that the Department report back with specific actions that can be taken by the Health Officer to address the ongoing MRSA in the jail and probation facilities.

This is to provide the reports requested by Supervisors Antonovich and Molina and to provide the update to our quarterly report of October 20, 2004.

MRSA at the Los Angeles County Sheriff's Facilities

The preliminary total number of cases of MRSA skin and invasive infections identified in 2004 was 2480 compared to 1849 in 2003 and 921 in 2002. The initial increase of identified infections from 2002 to 2003 was partially due to the increased surveillance efforts by the Sheriff's Department. The number of new infections per month has been stable since March 2004.

Based on analysis of the Sheriff's data, it is clear 1) that there is significant MRSA infection being brought into the jail by new inmates, 2) that there is significant transmission in the jail from inmate to inmate.

The increase in total cases is driven by both an increase in MRSA prevalence in the community and by an increase in the number of infections acquired in the jail. The number of presumed jail acquired infections (identified more than 15 days after admittance to the Jail) increased from 670 in 2002 to 1339 in 2004, although the percentage decreased from 76% in 2002 to 54% in 2004. The number of infections presumed to be acquired in the community (identified less than 5 days after admission) increased from 83 in 2002 to 595 in 2004 and the percentage increased from 9% in 2002 to 24% in 2004.

Based on careful analysis of the outbreak at the Jail, and consultations with the Centers for Disease Control and Prevention (CDC) and the California Department of Health Services, in 2002 DHS issued recommendations to control the spread of MRSA at the Jail. The Sheriff reports that policies have been developed and promulgated to address substantially all of the 2002 recommendations over the past 2 years. We are unable to verify the extent of actual implementation of some of these policies within the jail facilities, because 1) we do not have the staff capabilities to monitor the actual activities of approximately 17,500 persons in multiple facilities and 2) systems necessary for monitoring compliance are not in place.

Despite these efforts, the number of jail acquired cases of MRSA has shown an annual increase. This number may have been higher had the Sheriff not implemented the 2002 recommendations. Earlier identification and treatment with appropriate antibiotics has most likely decreased the morbidity and spread of MRSA.

In order to further decrease the spread of MRSA in the Jail, the most important action the Sheriff must take is to hire the additional jail health staff that the Board approved to address MRSA and other diseases of public health significance. This includes a physician, nurses and an epidemiologist. In addition to hiring the staff, we are reiterating and expanding on key aspects of the 2002 MRSA control policies. Adherence to all these recommendations with full, vigorous implementation is necessary to minimize transmission of MRSA within the Jail:.

1. Screen all inmates for MRSA infection on the medical intake form at admission to the Jail. Provide educational material (videos and flyers) to improve self-identification and self-report of lesions suspicious for MRSA.
2. Expeditiously evaluate all inmates, at any time in their incarceration, if they complain of having a skin infection. Encourage self-reporting of skin infections by inmates.
3. Develop protocols, in collaboration with DHS, for skin infections that include increased use of incision and drainage procedures according to best available data. Continue to use the DHS recommendations on antibiotics for skin infections when antibiotics are needed.
4. Assure access to daily showers for inmates. Encourage inmates to shower daily.
5. Assure access to soap for inmates. Encourage inmates to use soap.
6. At a minimum, maintain increased access to laundry exchanges (1 jumpsuit and 2 changes of underwear twice a week), which is twice the Title 15 requirements; increase to daily laundry exchange if possible.
7. Implement measures to reduce sharing of personal items (towels, soap, razors, etc.) including education and making personal items readily available to inmates.
8. Clean all environmental surfaces where inmates have bare skin contact (tables, chairs, athletic equipment) once a day with appropriate disinfectant.
9. Assure ongoing education by multiple means of deputies, civilian workers, and inmates about steps they can take to prevent the acquisition and spread of MRSA.

Compliance with all of these recommendations requires a significant dedication of resources including supplies, personnel, and money. However, even with perfect compliance with these steps, we do not expect MRSA to be eliminated from the Jail, particularly because of the crowded conditions in the facilities and the significant increase in MRSA in the community. Studies have shown that close, crowded living conditions, poor hygiene, sharing of personal items, and environmental contamination are all risk factors for the acquisition of MRSA. These conditions are endemic in the Jail and multiple other jurisdictions have reported MRSA outbreaks in correctional facilities, including Texas, Georgia, San Francisco, Mississippi, Tennessee, and Pennsylvania. No effort in any large correctional facility has been demonstrated to be successful to controlling MRSA. The increased frequency of MRSA in the general population will lead to continued reintroduction of MRSA into the Jail by newly admitted inmates.

The Sheriff's office has made important progress in efforts to control MRSA, particularly in earlier identification and more appropriate treatment. However, sustained compliance with these measures is critical for reducing further transmission in the jail. If, after a reasonable time, it is determined, through monitoring, that the measures listed above are not being implemented, and there continues to be an ameliorable public health threat, we will be prepared to issue a public health order instructing that these and any other appropriate measures be implemented.

Inmates exposed to MRSA may carry this disease into the community. The degree to which inmates spread MRSA to the community is unknown. However, community-associated MRSA is not a problem confined to the Los Angeles County Jail or to correctional facilities. Although MRSA is not reportable, information from medical providers throughout the County, and across the United States, indicates an increase in MRSA infections in the community including in the homeless population, drug users, and children. MRSA outbreaks have also been reported in a variety of settings including athletic teams and military bases where some of the same conditions of crowded living conditions, poor hygiene, and sharing personal items, may have contributed to the spread of MRSA. Thus we expect MRSA to be a long term problem in the general population of our communities.

MRSA in the Los Angeles County Probation Facilities

Seventy cases of MRSA infections were reported from the Probation Facilities (Juveniles) from January-December 20, 2004. This is an increase from 52 cases in 2003. There has been no apparent clustering of the cases. The Probation facilities have been in general compliance with our recommendations.

MRSA in the Community

Physicians were advised of the significance of MRSA in 2003 in several issues of *The Public's Health*, a newsletter we send to 29,000 providers. An update will be published within the next six months. Staff from Public Health has given presentations to physicians across the County regarding MRSA. Furthermore, staff from Public Health has finished environmental and prevention guidelines for MRSA and the guidelines are being distributed to gym owners, Chambers of Commerce, schools and homeless shelters. Public Health staff will be working with school authorities to develop guidelines concerning MRSA in school children.

If you have any questions or need more information, please let either of us know.

TG:JEF:EB

c: Chief Administrative Officer
County Counsel
Executive Officer, Board of Supervisors
Sheriff
Chief Probation Officer